for BPP.<sup>31</sup> Most of the non-recurring costs would be unnecessary if the LECs utilize MessagePhone's trunk-side architecture. As described <u>supra</u>., MessagePhone's architecture has the capability to translate signals into a variety of switching languages and protocols. After executing BPP functionality, the network interface translates the BPP call detail signals into the specific protocols utilized by the presubscribed carrier or service provider. In this manner, the OSPs will receive the call detail data in a format they can readily use.

OSPs that have operator service centers that receive BPP traffic both from LECs that utilize MessagePhone's trunk-side architecture and from LECs that utilize upgraded OSSs unfortunately will have to incur the costs of upgrading hardware and software of their operator service centers as described in the FNPRM. In such cases, MessagePhone's architecture will be able to transmit the call detail information with the same SS7 protocol utilized by the upgraded OSSs.

# C. Cost to Upgrade MessagePhone's Trunk-side Architecture for Additional Services

The costs quoted in section IV.A, <u>supra</u>., assume that BPP will be the only service offered by MessagePhone's trunk-side architecture. The implementation of additional services from the architecture would help decrease the cost of BPP. A percentage of the cost of the hardware and software would be appropriately

FNPRM at para. 28, note 45.

allocated to the non-BPP services. However, the cost of the system also would increase slightly. Many of the additional services, listed in Section III.A.2 <u>supra.</u>, utilize expanded port capacity because the services require more processing time than BPP. For example, some of the services, such as instant conference call, require the network interface to monitor the telephone call for signaling "after" call completion. However, the system implementation, as recommended for BPP, assumes more than 50% excessive port capacity. Much of this excessive capacity could be utilized for the additional services. Still, the architecture would require a hardware upgrade to assure adequate system performance. A hardware upgrade for additional services for the model RBOC would cost from \$3-10 million depending on the number of services offered from the architecture.

#### V. COMMENT ON SPECIFIC ISSUES RAISED BY THE COMMISSION

The Commission raised a number of specific issues to be addressed by interested parties to this proceeding. In this section, MessagePhone discusses two issues that are impacted directly by the presence of its technologies.

#### A. Will BPP Impede Local Exchange Competition?

The Commission is correctly concerned that the implementation of BPP could create a LEC bottleneck and impede the development of local exchange competition.<sup>92</sup> As presently conceived, BPP would require that all intraLATA and interLATA "0" calls would be funneled to the LECs' OSSs. If a final definition of BPP is so narrow that it excludes the implementation of other architectures, then the Commission will indeed create a new bottleneck that could thwart emerging However, the mere presence of MessagePhone's architectures competition. demonstrates that BPP can be implemented at several locations within the local public network without creating bottlenecks. Competitive access providers ("CAPs") should have the choice to implement and provide BPP. They could install MessagePhone's architecture, or other similar technology, and process the calls from within their own networks. Alternatively, CAPs could choose to trunk BPP calls to another LEC's network for processing. Small LECs should be given the same options. Processing BPP calls for other carriers will generate additional revenues for the LECs that install BPP hardware and software.

FNPRM at para. 35.

#### B. Can the BPP Architecture be Used to Curtail Fraud?

MessagePhone's trunk-side platform provides several functionalities that enable it to curtail LIDB and prison fraud. The architecture, with its line monitoring capability and call processing platform, has the ability to monitor and record LIDB queries:

[The] Intelligent Activity Profile application enables it to recognize a sudden increase in account activity and warn the appropriate service provider of the potential for fraud. The service provider can respond by calling the customer.<sup>33</sup>

The Intelligent Activity Profile application allows the architecture to recognize repeated attempts to determine the correct personal identification number ("PIN") or repeated telephone calls from a prison telephone to a particular destination number. Likewise, because of its intelligent monitoring capability, the architecture can be used to thwart other types of calling card theft:

On occasion, the criminal has access to the credit or calling card number but must use a computer or guess in order to determine the correct PIN. A computer is used to attempt LIDB queries with all four digit combinations until the correct PIN is utilized. MessagePhone's BPP platform is able to track the number of incorrect PIN entries and, after a predetermined number of attempts ... the BPP platform can withhold access to that account.<sup>34</sup>

In this manner, the architecture can be used to curtail many common varieties of fraud. Because of MessagePhone's trunk-side architecture, the

See, MessagePhone ex parte letter from Douglas E. Neel to William F. Caton, March 10, 1994 ("MessagePhone Ex Parte III"). This ex parte letter provides a detailed description of MessagePhone's various fraud prevention services.

MessagePhone Ex Parte III at page 5.

Commission should not hesitate implementing BPP on calls originating from prisons.

#### VI. CONCLUSION

It is time that consumers of operator services harvest the fruits of equal access. Consumers must have automatic access to their OSP of choice. They should not be burdened by exorbitant prices and by telephones that block access to preferred carriers. Moreover, because technology exists that provides equal access for all "0" calls, consumers should not have to dial extra codes and numbers in order to reach their preferred service provider.

Herein, MessagePhone describes its trunk-side architecture, readily available to the LECs, that provides BPP and a host of additional revenue-generating services. This architecture also can be used in conjunction with MessagePhone's line-side technology. The availability and low cost of these architectures demonstrates that the Commission must not hesitate adopting BPP. Moreover, MessagePhone's architectures furnish valuable new services and promote competition and should be implemented by many LECs. The costs of these architectures allow LECs to provide BPP for significantly less than the anticipated \$1.1 billion estimated by the <u>FNPRM</u>.

For these reasons, the Commission promptly must adopt rules implementing BPP.

Respectfully Submitted,

MESSAGEPHONE, INC.

Douglas E. Neel
Vice President, Regulatory Affairs
MessagePhone, Inc.
5910 N. Central Expressway
Dallas, Texas 75206
(214)987-8130

July 29, 1994

# **EXHIBIT A**



## Public Utility Commission of Texas

7800 Shoal Creek Boulevard Austin, Texas 78757 • 512/458-0100 Marta Greytok Commissioner

Robert W. Gee Chairman

Karl R. Rábago Commissioner

For Immediate Release:

August 24, 1993

Contact: Guillermo X. Garcia: 512/458-0226

Anne Roussos: 512/458-0257

PRIVATE PAY TELEPHONES NOT COMPLYING WITH PUC RULES

Nearly four of every ten privately-owned pay telephones tested in a recent survey violated state rules by failing to allow the user to access the long-distance company of their choice, a Public Utility Commission staff survey has found. Further, many of the telephones surveyed did not have adequate instructions posted for customers' use, nor did they allow access to a local operator when requested.

Some 231 of the 1,300 privately-owned pay telephones -those not owned or operated by local telephone companies -in metropolitan Austin were surveyed. The random survey, conducted in July, was intended to determine whether the privately-owned pay telephones were in compliance with PUC rules. Both PUC and Federal Communications Commission rules are designed to protect users of public telephones. Privately-owned pay telephones have been the source of numerous customer complaints at the PUC.

All pay telephones are required to post signs indicating which long-distance company carries that telephone's operator service calls. If the customer wants to use another long-distance company, the customer must dial an access code, such as "10XXX", "950-10XXX", or an 800 number.

Both state and federal regulations require that pay telephones allow for selection of long distance operator service of an individual's choice. Blocking -- that is, preventing an individual from accessing the desired longdistance carrier of his/her choice -- is not permitted. the PUC survey, only 139, or 60.2%, of the private pay telephones allowed the user to reach the long distance carrier of choice.

Pay telephones are also required to have an instruction card to assist the customer in reaching emergency services, and numbers to call for rate information and to register complaints. About one privately-owned pay telephone in every four tested did not have adequate instructions posted.

In addition, a customer using a pay telephone must be able to access a local telephone company operator. This ensures that if other dialing routes are blocked, the caller can at least reach the local operator. Almost one-third of the pay telephones surveyed did not allow the caller to do that.

The geographically-dispersed sample of 231 pay telephones were owned by thirty-four private vendors, ranging from companies that own one pay telephone to large multi-state companies that own thousands of them. Austin was selected because of resource limitations.

The rules and regulations that apply to private pay telephones and operator services are multi-layered; the PUC staff is contacting the appropriate telecommunications carriers to insure that corrective action is taken.

## **Public Utility Commission of Texas**

### **Memorandum**

August 24, 1993

TO:

Chairman Gee

Commissioner Greytok Commissioner Rábago

Brenda Jenkins

FROM:

Rowland Curry LL Vicki Oswalt 180 Paul Vigushin

SUBJECT:

Privately-Owned Pay Telephone Study

Our staff has completed a study of privately-owned pay telephones in Austin that shows the level of compliance with Substantive Rules 23.54 and 23.55. The study was conducted in July with the assistance of over twenty-five volunteers from throughout the agency. The results show that a large number of these pay telephones and their operator service providers fail to meet blocking and posting requirements. We have advised Southwestern Bell of the locations that fail to meet the standards, and we have asked Bell to investigate and disconnect those instruments where appropriate. We will also be contacting the operator service providers that have been found to be in violation of Substantive Rule 23.55 as a result of this survey.

We have attached a draft press release that describes our survey and general findings.

Through a copy of this memo, I would like to thank all of the divisions for their support in allowing their staff members to assist with this survey.

If you have questions or comments, please let us know.

cc:

Guillermo Garcia Division Directors

#### PRIVATE PAY TELEPHONE SURVEY

The staff of the Public Utility Commission of Texas conducted a survey of private pay telephones in the Austin area July 5th-9th. The compliance check consisted of a survey addressing posting and blocking requirements. This paper presents the results of the survey.

#### Generating the Survey Sample

Initially, a universe of all 1705 private pay telephones in the Austin area was established, through a list requested of Southwestern Bell. After an initial review, 460 payphones were eliminated due to erroneous addresses, non-working numbers, or duplications. The remaining 1245 payphones were used to generate a high-probability random sample, using a 95% confidence interval and a 5% margin of error. These two variables were chosen arbitrarily, but were influenced by time constraints as well as resource availability. A higher confidence interval and a lower margin of error would have generated a higher random sample, and would have required more time and resources to check. Having determined the margin of error and confidence interval, a statistical table of random numbers was used to derive the sample size and selection of 306 private pay telephones.

#### The Questionnaire

The questionnaire, provided as an attachment to this paper, was divided into two sections, the first to evaluate compliance with certain posting requirements and the second to determine the level of blocking of access to local exchange company (LEC) operators and interexchange carriers. Survey questions were derived from the requirements set forth in Sections 23.54 and 23.55 of the PUC's Substantive Rules. Compliance with separate FCC requirements was not surveyed. Also included in the questionnaire were questions designed to help the surveyor identify the owner of the pay telephone set, as well as the operator service provider (OSP).

To comply with the posting requirements of our Substantive Rules, the pay telephone set must display a card that includes the following information: name of the OSP; instructions for registering a complaint; instructions, in English and Spanish, for accessing emergency service; a notice stating that long distance calls may be made by using a carrier of choice; and instructions for obtaining rates at no charge.

In order to evaluate each payphone for blocking of long distance carriers, each surveyor was asked to dial four different numbers, one each for Sprint (1-800-877-8000) and AT&T (10288+0), and two for MCI (950-1022 and 10222+0), to see if the call would be connected to the proper carrier. Denying access to interexchange carriers by blocking "950-XXXX" and "1-800" numbers is forbidden. Limiting access to interexchange carriers by blocking "10XXX+0" is allowed only if the end office serving the originating line does not have originating line screening capability. In Austin, however, all of Southwestern Bell's wire centers have originating line screening capability, thereby making the blocking of "10XXX+0" a violation of PUC Substantive Rules.

#### Conducting the Survey

Of the original sample size of 306 payphones, only 231, or 75.5%, were actually surveyed. The majority of the instruments not surveyed were never located, even though their addresses and phone numbers were provided by Southwestern Bell as part of the original universe. Of the non-surveyed payphones, nineteen had been recently removed from the premises, four were out for repair, eight had changed hands from private ownership to Southwestern Bell, twenty-one could not be located by the surveyors because of non-posted numbers, eleven were located outside of the Austin Metropolitan survey area, five were fax machines (instead of payphones), one was vandalized beyond use, and six were listed under a wrong address. All payphones found to be in non-compliance with any portion of PUC Substantive Rule 23.54 were reported to Southwestern Bell, to begin disconnect proceedings.

#### Violations Encountered

#### **Blocking**

The most common violation seen during this survey was blocking. Of the 231 payphones located and tested, only 139 (60.2% of the total) allowed the user to access the long distance carrier of choice, without blocking. This denial of access represents not only a violation of the PUC's Substantive Rules, but also a violation of FCC Orders that prohibit blocking. Additional findings related to blocking were as follows:

- 22.9% of the private pay telephones surveyed completely blocked 10XXX access.
- 39.4% of the pay telephones surveyed blocked access to the 10222+0 MCI access code
- 23.4% of the pay telephones blocked access to the 10288+0 AT&T access code.
- 1.3% of the pay telephones surveyed blocked access to the 950-1022 MCI access code.
- Two instruments (0.86%) blocked access to the 1-800-877-8000 Sprint access code.
- Two of the pay telephones surveyed (0.86%) completely blocked access to any of the three major carriers.
- Indications of blocked pay telephones were varied, and included a busy signal, the inability to dial past the first two digits, and the necessity to deposit money in order to dial the long distance access number.
- The staff encountered a disturbing situation, though not technically a blockage, in about a dozen of the surveyed pay telephones. When the user dialed a long distance access code, a mechanized voice came on line, telling the caller to hang up, deposit a coin and use the presubscribed long distance carrier for a 50% savings on long distance calls. If the caller remained on the line, ultimately a connection with the long distance carrier, as originally dialed, was made.

#### Accessing the Local Operator

PUC Substantive Rule 23.55 states that a non-LEC OSP shall provide access to the local exchange carrier operator serving the exchange from which the call is made, by either directly routing all "0-" calls to the local exchange carrier operator, without charge to the caller, or by transferring or redirecting the call to the LEC OSP upon request. A total of 32.9% of the OSPs accessed by the payphones in the survey failed, in one form or another, to carry out the request.

Examples of these failures included common elements, such as being told to dial 611, 10-288, 1-411, 411, or 0-0 to access the local exchange operator, none of which methods provided access to the local operator. Some of the OSPs told the caller outright that they could not make the transfer to a LEC operator. Some payphones even required the deposit of a quarter to complete the call.

#### Posting Violations

As far as the information provided on the card is concerned, the following irregularities were noted:

- 24.7% of the private pay telephones surveyed did not have any language notifying the caller that rates may be checked at no charge.
- 22.9% failed to post instructions for accessing the local exchange operator, and 21.6% of the pay telephones failed to post instructions for using the long distance carrier of choice.
- 16% of the pay telephones surveyed failed to provide instructions in English and Spanish for accessing emergency service.
- 17.3% of the private pay telephones did not provide information on how to register a complaint.

#### **Corrective Action**

- All payphones found to be in non-compliance with any portion of PUC Substantive Rule 23.54 were reported to Southwestern Bell, to begin disconnect proceedings.
- To the extent possible, payphones found to be in non-compliance with any portion of PUC Substantive Rule 23.55 will be reported to the appropriate OSP for the purpose of rectifying those violations.

#### Other Recommendations

Having successfully completed the survey, we recommend that the results gathered be put to the following uses. First, a rulemaking proceeding should be considered to address the problem of mechanized advertising when a caller dials an interexchange carrier. Second, the PUC staff should continue to work with private payphone industry representatives to help them develop internal compliance procedures.

## **SURVEY RESULTS**

Total Payphones in Universe	1245	
Total Payphones in Sample Size	306	
Total Payphones Not Located or Out of Order	<i>7</i> 5	
Total Payphones Located and Surveyed	231	
Total Payphones Blocked for MCI (950-XXXX)	3	1.3%
Total Payphones Blocked for MCI (10-XXX)	91	39.4%
Total Payphones Blocked for AT&T (10-XXX)	54	23.4%
Total Payphones Blocked for Sprint (1-800)	2	0.86%
Total Payphones Completely Blocked for 10-XXX	53	22.9%
Total Payphones Completely Unblocked	139	60.2%
Total Payphones Completely Blocked	2	0.86%
Total Payphones Unable to access LEC Operator	76	32.9%
Total Payphones Without 911-Instructions	37	16.0%
Total Payphones Without LEC-Operator Instructions	53	22.9%
Total Payphones Without Complaint Instructions	40	17.3%
Total Payphones Without Long Distance Information	50	21.6%
Total Payphones Without Rates Notice	57	24.7%
Payphones in Total Compliance	82	35.5%
Payphones in Total Non-Compliance	0	0%

#### **PAY PHONE SURVEY**

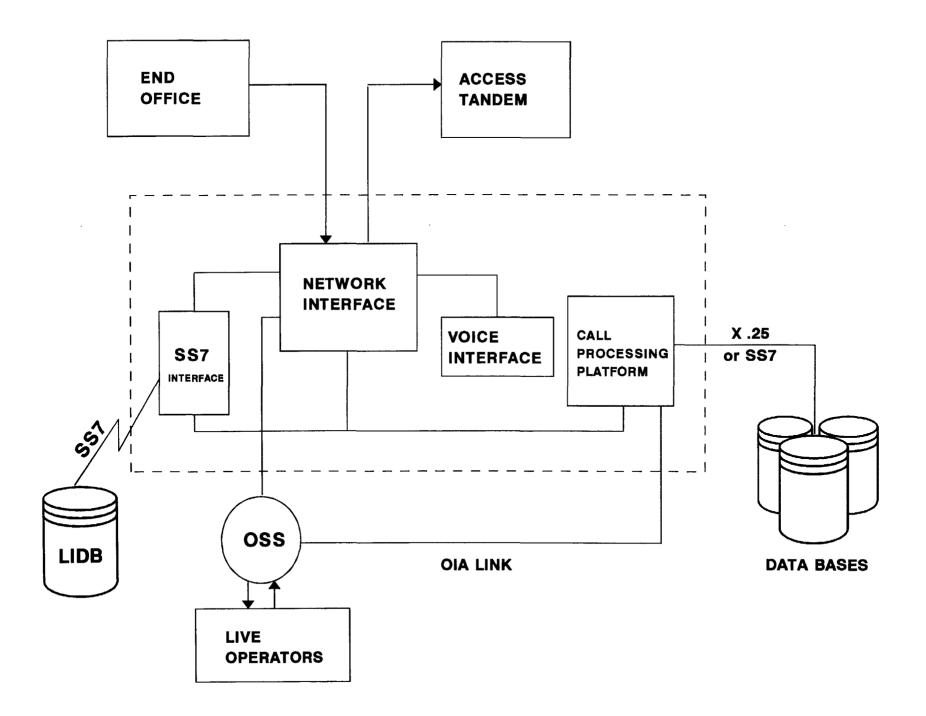
The Public Utility Commission is conducting a survey of telephones used by the public to measure the level of compliance with the Commission rules regulating operator service providers (OSPs), and private pay phone providers. OSPs are the companies that provide the public with long distance service, in particular calls that require operator assistance or calls that are alternately billed (billed to third party, collect, credit card). Private pay phone providers are parties other than local exchange carriers who own or operate pay telephones.

1) /	Address of facility:
2) I	Pay phone number:
3) I	s the following information attached:
	a) Name of OSP Provider:
	b) Instructions for accessing the OSP:
	c) Instructions for accessing the LEC operator:
	d) Instructions for registering a complaint:
	e) Instructions in English and Spanish for accessing emergency service:
	f) A notice that states, "You may use another long distance carrier."
	g) Instructions for obtaining rates at no charge:
4)	What is the name of the OSP:
	What is the address of the OSP (if available):
6)	What is the toll-free telephone number of the OSP:
7)	What is the name and address of private pay phone owner:
8)	What is the telephone number of the private pay phone owner:
9)	Is there a notice identifying the set as a private pay telephone:
10)	What is the name of the owner or agent responsible for refunds and repairs:
11)	What is the telephone number of the above owner or agent:
12)	If the OSP is not the LEC operator, dial "0" and request access to the LEC operator.
	Were you transferred to the LEC operator?
Bloc	king:
13)	Dial 1-800-877-8000. Was Sprint identified in any way?
14)	Dial 950-1022. Was MCI identified in any way?
15)	Dial 10222+0. Was MCI identified in any way?
16)	Dial 10288+0. Was AT&T identified in any way?
QUES	TIONS: 3 - SUBST. R. 23.55 & SUBST. R. 23.54 FOR AUTOMATED PAY PHONES TIONS: 13-15 - SUBST. R. 23.54 & 23.55 TIONS: 4 & 6 - SUBST. R. 23.55 & SUBST. R. 23.54 FOR AUTOMATED PAY PHONES TIONS: 7-12 - SUBST. R. 23.54

# EXHIBIT B

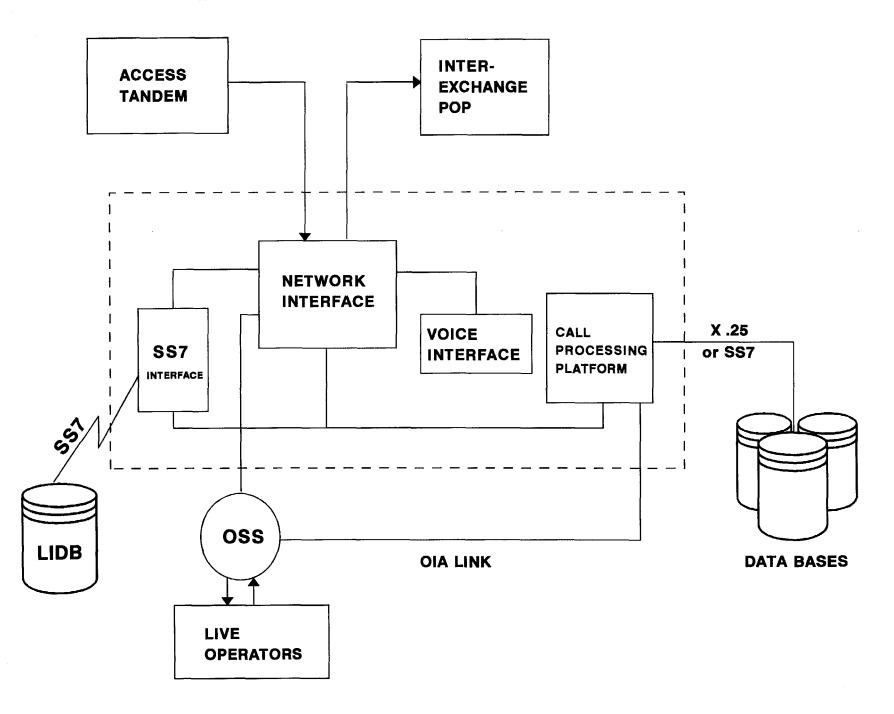
# **BPP "TRUNK-SIDE" ARCHITECTURE**

INSTALLED BETWEEN THE END OFFICE AND ACCESS TANDEM



## **BPP "TRUNK-SIDE" ARCHITECTURE**

#### INSTALLED BETWEEN THE ACCESS TANDEM AND INTEREXCHANGE POP



#### Certificate of Service

I, Douglas E. Neel, hereby certify that I have on this twenty-ninth day of July, 1994, sent copies of the foregoing Comments by first-class United States Mail, postage prepaid, to the following:

Vonglas E. Nacl

Policy and Program Planning Division\* Common Carrier Bureau Federal Communications Commission Room 544 1919 M Street, N.W., Washington, D.C. Washington, D.C. 20554

ITS, Inc. 2100 M Street, N.W. Suite 140 Washington, D.C. 20037

\* Two Copies Provided